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EPA Five Year Review of the Remedial Action at the  
Mountain View Mobile Home Estates Superfund Site in Globe  
Arizona

I. INTRODUCTION

1. Scope and intent of current five year review

This report is the statutory five year review of the remedial action at the Mountain View Mobile Home Estates Superfund site (EPA ID Number AZD980735724) in Globe Arizona. This review included a survey of the RI/FS, the ROD, the Site Close Out Report, the Site O&M Manual, O&M reports, an ARAR's review, interviews with the State of Arizona personnel who are responsible for site O&M and a site visit with site photographs.

The purpose of this five year review of the selected remedial action is two fold. The first goal of this review is to confirm that the remedy selected in the ROD and the remedial design remains effective at protecting human health and the environment at the site. This includes ensuring that the remedy, which is a cap, is operating and functioning as designed, and that institutional controls are in place and are protective. The second goal is to evaluate whether the original cleanup objectives remain protective of human health and the environment.

2. Summary of review results

The results of the five year review of the remedial action at the Mountain View site are that: (1) the cap is in excellent condition and is operating and functioning as designed, (2) the institutional controls, which include the fence and signs, are in excellent condition and are entirely sufficient and adequate, (3) the present operations and maintenance program for the site is adequate and is being acceptably executed by the State of Arizona (4) the original cleanup objectives remain protective of human health and the environment, and (5) there are no new ARAR's which would make the remedial action insufficient.

## II. SITE SUMMARY

### 1. Site description and history

The Mountain View Mobile Home Estates site was a 17 acre residential subdivision of approximately 130 people that was built in 1974 on graded asbestos tailings and contaminated soil. Prior to 1974 the site was the Metate Asbestos Corporation mill in Globe, Arizona, approximately 75 miles east of Phoenix. The mill processed asbestos ore from 1953 until it was closed in 1974 by permanent injunction of the Gila-Pinal Counties Air Quality Control District for failure to meet air quality standards.

The mobile home residential development was located within the Globe city limits 1.5 miles east of the center of the city. The development contained 45 mobile homes with paved roads; utilities; landscaping; a sewage treatment plant and lagoon; and miscellaneous improvements including concrete patios, walls and storage sheds.

The mobile home subdivision became a concern of the officials at the State of Arizona Health Department in 1979 following the discovery of asbestos contamination in the underlying soils. In January 1980, the U.S. Center for Disease Control (CDC) issued an advisory declaring that the subdivision should be evacuated.

The site was added to the amended Interim Priorities List in July 1982 as Arizona's highest priority site. In January 1983, Superfund monies were allocated for an RI/FS. The final draft RI/FS report was published May 6, 1983. On June 2, 1983, the EPA Record of Decision selected permanent relocation of the residents and subsequent site closure, capping, and maintenance as the remedial action for the site.

### 2. Description of the selected remedy

Abandonment of the Mountain View Mobile Home Estates site was chosen as the most practical and economical method of dealing with the asbestos contamination on the site. The permanent relocation of all subdivision residents eliminated the need for any extensive future air monitoring programs, while the onsite burial of mobile homes and all other physical structures lead to: (1) simplify the overall cleanup procedure, (2) economize site cleanup costs, and (3) achieve a greater degree of total decontamination.

The remedy called for onsite demolition and burial of all physical structures, posts, buildings and mobile homes. Their onsite containment, as well as the onsite containment of asbestos particles and fibers present in the soil was accomplished with a permanent cap. The cap was constructed by first clearing and leveling the site, adding a white nonwoven filter fabric liner on top of the leveled site to prevent re-exposure through erosion of the cover, placing 21 inches of clean fill on top of the liner and compacting this fill to a minimum density of 90 percent. On top of this compacted layer was placed three inches of coarse (two-inch)

aggregate rock compacted to 95 percent density. The intent of the liner was to serve not only as a barrier to the asbestos but to be an early warning signal if erosion does occur at the site in the future. The white fabric will serve as a highly visible sign that maintenance must be performed on the site.

Storm drainage and runoff passing through the site was a major consideration since the site contained three major washes passing through the site and two of these drainages were relatively steep grades as they passed through the site. Drainage studies were done of the area to determine the stormwater runoff that would be anticipated to pass through these washes. Two new underground drainage pipelines and one new open drainage channel were designed to carry the 100-year storm to reduce the likelihood of overflow and major erosion.

### 3. Operations and maintenance requirements

The maintenance which can be anticipated at this site includes but is not limited to:

- 1) Repair of fence damage resulting from vandalism or animals.
- 2) Picking-up or collecting debris which accumulates along the inside and outside perimeter fence.
- 3) Removing built-up silts or debris within the channel or inside pipes or storm structures.
- 4) Replacing or repainting of warning signs on the perimeter fence.
- 5) Repair settlement or erosion of the soil/aggregate cap.

Monitoring of growth during inspection is valuable to note any changes at the site.

## II. REMEDIAL OBJECTIVES

The remedy was selected from a health standpoint. The alternatives evaluated were judged on the basis of the CDC recommendation that residents of the site not be exposed to asbestos in concentrations that exceed the national urban background levels. The relocation of the residents therefore precluded the risk of future exposure at the site. Relocation, demolition and subsequent capping also provided the most technically feasible control of the asbestos on site. The cap and site maintenance provides for protection of any nearby residents to exposure from the asbestos which was on the site.

### III. ARAR's REVIEW

#### 1. Review of Federal ARAR's

The Federal ARAR's which apply to this site are found in 40CFR Ch. 1 (7-1-88 Edition) Section 61.153. Section 61.153 is "Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating facilities." This standard description was published after the remedial action. The remedy which is in place is in compliance with all requirements given in this standard.

Section 61.153 paragraph (a)(3) describes an acceptable cap for asbestos waste, "Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted clean material, and maintain it to prevent exposure of the asbestos containing waste." This is acceptably accomplished by the present cap.

#### 2. Review of State ARAR's

The state of Arizona project manager responsible for O&M at the site was contacted to determine if any new ARAR's had been promulgated since the ROD which would render the remedial action inadequate. The state of Arizona has not provided any asbestos related ARAR's which impact the remedy at the site.

### IV. SUMMARY OF SITE VISIT

#### 1. Scope of site visit and activities conducted

A site visit and inspection was conducted by the EPA Superfund project manager on August 28, 1991. The inspection consisted of: (1) a walking inspection of the entire perimeter of the site to look for damaged fence, missing warning signs, collected debris and checking the condition of the gate and lock, (2) Traversing the interior of the site from east to west at 150 interval lines looking for signs of beginning erosion, signs of settlement, exposed fabric liner, indications of pools of standing water, checking that drainage manhole covers are in place and undisturbed, noting weed and shrub growth, looking for tree growth and looking for animal burrows, (3) inspecting the drainage system for signs of erosion, debris accumulation, rip rap displacement, (4) checking the concrete drainage channels for cracks, undercutting and settling and weed growth, and (5) photographing site features and conditions for inclusion in this review report.

#### 2. Site conditions found on inspection

The site was found to be in excellent condition. The fence was in very good condition with little collected debris. Some weed growth and accumulation along the fence might present a fire hazard to nearby residents but this is regularly addressed by the state of Arizona's O&M procedures.

There was no sign of erosion, beginning erosion or settlement anywhere on the site, There was also very little collected sand or gravel in the drainages indicating the lack of erosion at the site. The weed growth was homogenous and thorough. The O&M plan states that this is good because the weeds will help stabilize the aggregate and prevent erosion of the cap. The concrete drainage channels were clear and free of weeds in the seams, and there were no cracks in the concrete itself.

There were several trees beginning to grow on the site. The O&M plan suggests that trees with trunks greater than 6 inches in diameter should be removed to prevent the roots from disrupting the the cap. The trees presently growing on site are approximately 2 inches in diameter. Specimens of the same species of tree located just off site do however have trunks with 12 to 14 inch diameters. Consequently the three specimens growing on the site should be remove before they grow to a larger size which might disrupt the cap or penetrate to the fabric liner. There was no sign of burrowing animals on the site.

### 3. Photographs of site taken during the inspection

The photographs taken of the site during the site inspection are attached to this report with a description of the view on the back of the photograph. A site map showing the position and direction of the photographs is included.

## V. AREAS OF NONCOMPLIANCE

There were no areas or conditions of noncompliance with the goals of the remedial action at the site.

## VI. STATEMENT OF PROTECTIVENESS

The remedial action selected in the ROD signed June 2, 1983 for the Mountain View Mobile Home Estates Superfund site was reviewed in August and September 1991. The remedial action was found to be protective of human health and the environment at that time.

## VII. NEXT REVIEW

Asbestos has been left on site and consequently the remedy does not allow for unlimited use and unrestricted exposure. Thus there is the requirement for five year reviews of the remedial action at this site in perpetuity. The next five year review will be conducted in fiscal year 1996. OSWER Directive 9355.7-02 describes the structure and components of five-year reviews. This policy directive states that EPA may arrange for state agencies to conduct five-year reviews. This may be an acceptable option as the State of Arizona Department of Environmental Quality (DEQ) offices are only 75 miles from the site. Also, DEQ is the state agency responsible for O&M activity at the site.

VIII. IMPLEMENTATION REQUIREMENTS

Presently there are no implementation requirements or changes to the O&M plan at this site. The remedial action and O&M procedures are adequate.